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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WAGNER, MURABITO & HAO LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

EXAMINER

WANG, JIN CHENG

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 04/23/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,043

Applicant(s)

PRIEM, CURTIS R.

Examiner

Jin-Cheng Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- ☐ Interview Summary (PTO-413) Paper No(s). ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 2/12/2003 has been entered. Claims 48-54 have been added. Claims 1-3, 6, 14, 26-28 and 37 have been amended.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Lobodzinski U.S. Patent No. 5,734,873.

3. Claim 1:

The Lobodzinski reference has taught a system for rendering fonts (see figure 1 of the reference, column 1, lines 53-67, column 2, lines 1-6, column 2, lines 40-57) the system comprising:

A memory (frame buffer 56 of figure 2, column 2, lines 58-67, column 3, lines 1-10) having stored therein a data structure (figures 3-7, column 3, lines 11-33, column 4, lines 1-4), the data structure including at least one font array (e.g., font 1 of reference sign 62a and font 2 of reference sign 62b of figure 3 in the reference); and

A graphics controller (i.e. the display controller 30 of figure 1. The detailed description of the display controller 30 is shown in figure 2 of the reference) coupled to the memory (i.e., a separate memory similar to frame buffer 56, column 3, lines 4-5), the graphics controller (i.e., the display controller 30) accessing a font array of the data structure, the graphics controller (i.e., the display controller 30) comprising memory (Frame Buffer 56) for holding information read from the font array (i.e., Frame Buffer 56 of figure 2 holding information read from the font array in Character font information 62 of figure 3A and 4A).

- The examiner interprets the graphics controller of the claimed invention as the display controller 30 of figures 1 and 2 of Lobodzinski.
- The examiner notes that elements of the graphics controller shown in discrete components in the reference can be combined in a variety of fashions and should be still within the scope of Lobodzinski's invention, e.g., the register file 46 and the frame buffer 56 could be integrated with the graphics engine 48 and can be included in the graphics engine 48 (column 3, lines 4-5).
- The examiner further notes that the reference implicitly teaches that the graphics controller increases the speed of certain operations and displays selected operations at high speed rather than using the CPU to perform the operation (see the summary of the reference, and column 1, lines 13-49).

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Claim 2:

The claim 2 encompasses the same scope of the invention as that of claim 1 except additional claimed limitation of "a frame buffer." However, Lobodzinski further discloses claimed invention of a frame buffer (reference numeral 56 of figure 2).

Claim 3:

The claim 2 encompasses the same scope of the invention as that of claim 1 except additional claimed limitation of "a system memory." However, Lobodzinski further discloses claimed invention of a system memory (reference numeral 24 of figure 1).

Claim 4:

The claim 4 encompasses the same scope of the invention as that of claim 1 except additional claimed limitation of "a plurality of characters." However, Lobodzinski further discloses claimed invention that font 1 comprises a plurality of characters C0-C256 and font 2 comprises a plurality of characters C0-C96 (figure 3A). Therefore, the claim 4 is rejected for the reason as set forth above.

Claim 5:

The claim 5 encompasses the same scope of the invention as that of claim 4 except additional claimed limitation of "each of the characters comprises one bit per pixel." However, Lobodzinski further discloses claimed invention that each of the characters C0-C256 comprises one bit per pixel (figure 3A). Therefore, the claim 5 is rejected for the reason as set forth above.

Claim 6:

The claim 6 encompasses the same scope of the invention as that of claim 4 except additional claimed limitation of "each of the characters comprises a plurality of bits per pixels."

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However, Lobodzinski further discloses claimed invention that each of the characters C0-C256 comprises a plurality of bits per pixel (figure 3B). Therefore, the claim 6 is rejected for the reason as set forth above.

Claim 7:

The claim 7 encompasses the same scope of the invention as that of claim 1 except additional claimed limitation of “at least one font array comprises a plurality of font arrays.” However, Lobodzinski further discloses claimed invention that at least one font array comprises a plurality of font arrays (figure 4A). Therefore, the claim 7 is rejected for the reason as set forth above.

Claim 8:

The claim 8 encompasses the same scope of the invention as that of claim 7 except additional claimed limitation of “each of the plurality of font arrays includes a plurality of characters.” However, Lobodzinski further discloses claimed invention that each of the plurality of font arrays includes a plurality of characters (figures 3B and 4B). Therefore, the claim 8 is rejected for the reason as set forth above.

Claim 9:

The claim 9 encompasses the same scope of the invention as that of claim 8 except additional claimed limitation of “characters within different font arrays can be different sizes.” However, Lobodzinski further discloses claimed invention that characters within different font arrays can be different sizes (figures 4B and 5). Therefore, the claim 9 is rejected for the reason as set forth above.

Claim 10:

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The claim 10 encompasses the same scope of the invention as that of claim 9 except additional claimed limitation of “each of the characters comprises a bit per pixel.” However, Lobodzinski further discloses claimed invention that each of the characters comprises a bit per pixel (figures 4B and column 4, lines 5-21). Therefore, the claim 10 is rejected for the reason as set forth above.

Claim 11:

The claim 11 encompasses the same scope of the invention as that of claim 9 except additional claimed limitation of “each of the characters comprises a plurality of bits per pixel.” However, Lobodzinski further discloses claimed invention that each of the characters comprises a plurality of bits per pixel (column 5, lines 54-65). Therefore, the claim 11 is rejected for the reason as set forth above.

Claim 12:

The claim 12 encompasses the same scope of the invention as that of claim 9 except additional claimed limitation of “each of the characters includes size height information.” However, Lobodzinski further discloses claimed invention that each of the characters includes size height information (column 6, lines 60-65). Therefore, the claim 13 is rejected for the reason as set forth above.

Claim 13:

The claim 13 encompasses the same scope of the invention as that of claim 9 except additional claimed limitation of “each of the characters includes size width information.” However, Lobodzinski further discloses claimed invention that each of the characters includes

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size width information (column 6, lines 60-65). Therefore, the claim 13 is rejected for the reason as set forth above.

4. Claim 14:

The claim 14 encompasses the same scope of the invention as that of claim 7 except additional claimed limitation that “the graphics controller comprises a set of registers for utilizing the information within the plurality of font arrays such that font characters can be efficiently retrieved and rendered.” However, Lobodzinski further discloses claimed invention in figure 2 where the graphics controller comprises a set of registers inside BLT ENGINE 50, TEXT ENGINE 52 and OTHER ENGINE 54. It is further noted that elements of the graphics controller shown in discrete components in the reference can be combined in a variety of fashions and should be still within the scope of Lobodzinski’s invention, e.g., the register file 46 could be integrated with the graphics engine 48 and can be included in the graphics controller. Therefore, the claim 14 is rejected for the reason as set forth above.

Claim 15:

The claim 15 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of “the set of registers includes a font pointer register.” However, Lobodzinski further discloses claimed invention that the set of registers includes a font pointer register (column 5, lines 33-49). The Office interprets the text font address register as a font pointer register in the claimed invention because the reference teaches that the font address register *points* to an address of the character font set. Therefore, the claim 15 is rejected for the reason as set forth above.

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Claim 16:

The claim 16 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of “the set of registers includes a font pitch register.” However, Lobodzinski further discloses claimed invention that the set of registers includes a font pitch register (see table 1). The Office interprets the TXE Command Reg1 register as a font pitch register in the claimed invention because the TXE Command Reg1 register has bits information (5-3) of font pitch. Therefore, the claim 16 is rejected for the reason as set forth above.

Claim 17:

The claim 17 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of “the set of registers includes an index register.” However, Lobodzinski further discloses claimed invention that the set of registers includes an index register (see table 1). The Office interprets the TXE String Address register as an index register in the claimed invention that stores address of *character indexes*. Therefore, the claim 17 is rejected for the reason as set forth above.

Claim 18:

The claim 18 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of “a horizontal information register.” However, Lobodzinski further discloses claimed invention of a horizontal information register (see table 1). The Office interprets the TXE Destination X register as a horizontal information register in the claimed invention because the TXE Destination X register stores onscreen X location (horizontal location) for text string to be drawn in accordance with the table 1 of the Lobodzinski reference. Therefore, the claim 18 is rejected for the reason as set forth above.

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Claim 19:

The claim 19 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of “a vertical information register.” However, Lobodzinski further discloses claimed invention of a vertical information register (see table 1). The Office interprets the TXE Destination Y register as a vertical information register in the claimed invention because the TXE Destination Y register stores onscreen Y location (vertical location) for text string to be drawn in accordance with the table 1 of the Lobodzinski reference. Therefore, the claim 18 is rejected for the reason as set forth above.

Claim 20:

The claim 20 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of “a linear information register.” However, Lobodzinski further discloses claimed invention of a linear information register (see table 1). The Office interprets the TXE String Address register or TXE Font Address register as a linear information register in the claimed invention because any of two registers stores *linear* dword address. Therefore, the claim 20 is rejected for the reason as set forth above.

Claim 21:

The claim 21 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of “a glyph information register which holds character information retrieved by the graphics controller based upon the font pointer register.” However, Lobodzinski further discloses claimed invention of a glyph information register (see table 1).

Claim 22:

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The claim 22 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of "a glyph information register which holds character information retrieved by the graphics controller based upon the font pitch register." However, Lobodzinski further discloses claimed invention of a glyph information register (see table 1).

Claim 23:

The claim 23 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of "a glyph information register which holds character information retrieved by the graphics controller based upon the index register." However, Lobodzinski further discloses claimed invention of a glyph information register (see table 1).

Claim 24:

The claim 24 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of "a size width register." However, Lobodzinski further discloses claimed invention of a size width register (see table 1). The Office interprets the TXE Character Count register as a size width register in the claimed invention because the reference teaches that TXE Character Count register is the same as BLT width register and stores the number of text glyphs to be drawn. Therefore, the claim 20 is rejected for the reason as set forth above.

Claim 25:

The claim 25 encompasses the same scope of the invention as that of claim 14 except additional claimed limitation of "a size height register." However, Lobodzinski further discloses claimed invention of a size height register (see table 1). The Office interprets the TXE Height register as a size height register in the claimed invention because the reference teaches that TXE

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Height register is the same as BLT height register and stores the number of scan-lines of text to be drawn. Therefore, the claim 20 is rejected for the reason as set forth above.

5. Claim 26:

The claim 26 is a rephrasing of claim 1 in a method form. The claim 26 is rejected for the same reason as set forth in claim 1.

Claims 27-36:

Claims 27-36 is a rephrasing of claims 2-11 in a method form. The claim is rejected for the same reason as set forth respectively in claims 2-11.

Claims 37-43:

Claims 37-43 is a rephrasing of claims 14-20 in a method form. The claim is rejected for the same reason as set forth respectively in claims 14-20.

Claims 44-47:

Claims 44-47 is a rephrasing of claims 22-25 in a method form. The claim is rejected for the same reason as set forth respectively in claims 22-25.

Claims 48-54:

Claims 48-54 encompass the same scope of invention as that of claims 1-19. The claims are rejected for the same reason as set forth in claims 1-19.

Remarks

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2. Applicant's arguments, filed 01/08/2003, paper number 9, have been fully considered but they are not deemed to be persuasive.

3. Applicant argues in essence with respect to claim 1 and similar claims that:

"Applicant respectfully submits that Lobodzinski does not show or suggest 'a graphics controller coupled to the memory, the graphics controller accessing a font array of the data structure, the graphics controller comprising memory for holding information read from the font array' as recited in independent Claim 1 (emphasis added)."

This is not found persuasive for the reasons given below.

(1) The examiner will show that Lobodzinski fulfills the claim 1 as currently amended IF the examiner interprets the graphics controller of the claimed invention as the graphics engine 48 of Lobodzinski (see figure 2).

In column 2, lines 35-67, column 3, lines 1-33, column 4, lines 1-33, column 5, lines 34-65, Lobodzinski clearly teaches a graphics engine 48 of figure 2 coupled to the memory (i.e., a separate memory similar to frame buffer 56, column 3, lines 4-5), the graphics controller (i.e., the graphics engine 48) accessing a font array of the data structure, the graphics controller (i.e., the graphics engine 48) comprising memory (registers within the text engine, figure 2, TABLE I, column 4, lines 30-33, column 5, lines 33-49) for holding information read from the font array (i.e., the font array in Character font information 62 of figure 3A and 4A).

Moreover, the examiner notes that elements of the graphics controller shown in discrete components in the reference can be combined in a variety of fashions and should be still within the scope of Lobodzinski's invention, e.g., the register file 46 and the frame buffer 56 could be

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integrated with the graphics engine 48 and can be included in the graphics engine 48 (column 3, lines 4-5).

As applied to the present application, Lobodzinski fulfills claim 1 as currently amended.

(2) The examiner will show that Lobodzinski fulfills the claim 1 as currently amended IF the examiner interprets the graphics controller of the claimed invention as the display controller 30 of Lobodzinski (see figures 1 and 2).

A memory (a separate memory of column 3, lines 4-5 similar to the frame buffer 56 of figure 2, column 2, lines 58-67, column 3, lines 1-10) having stored therein a data structure (figures 3-7, column 3, lines 11-33, column 4, lines 1-4), the data structure including at least one font array (e.g., font 1 of reference sign 62a and font 2 of reference sign 62b of figure 3 in the reference); and

A graphics controller (i.e. the display controller 30 of figure 1. The detailed description of the display controller 30 is shown in figure 2 of the reference) coupled to the memory (i.e., a separate memory similar to frame buffer 56, column 3, lines 4-5), the graphics controller (i.e., the display controller 30) accessing a font array of the data structure, the graphics controller (i.e., the display controller 30) comprising memory (Frame Buffer 56) for holding information read from the font array (i.e., Frame Buffer 56 of figure 2 holding information read from the font array in Character font information 62 of figure 3A and 4A).

As applied to the present application, Lobodzinski AGAIN fulfills claim 1 as currently amended.

4. Applicant argues in essence with respect to claim 1 and similar claims that:

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“Applicant respectfully submits that Lobodzinski does not show or suggest ‘placing the information read from the font array in memory resident on a graphics controller’ as recited in independent Claim 1 (emphasis added).”

This is not found persuasive for the reasons given below.

The examiner interprets the font array as the array of Index 412, Font Pointer 414, Font Pitch 415, X 416, Y 418, Size Width 420, Size Height 421. However, this array is resident on the graphics engine 48 of figure 2 (See TABLE I, column 4, lines 30-33, column 5, lines 33-49 of Lobodzinski).

As applied to the present application, Lobodzinski fulfills claim 26 as currently amended.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213.

The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

jcw
April 1, 2003



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600